

**AMENDMENTS TO THE CLAIMS:**

Please amend claims 2, 17, and 21, and add new claims 23 and 24, as indicated below.

This listing of claims will replace all prior versions and listings of claims in the application:

**LISTING OF CLAIMS:**

1. (Previously Presented) A semiconductor device manufacturing method comprising:  
forming an island region including a monocrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer  
( $1 > x > 0$ ,  $1 > y \geq 0$ ) and a peripheral region including an amorphous layer;  
subjecting the  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer and the amorphous layer to heat treatment; and  
forming a monocrystalline  $\text{Si}_{1-z-w}\text{Ge}_z\text{C}_w$  layer ( $1 > z \geq 0$ ,  $1 > w \geq 0$ ), which becomes a  
device formation region, on the island region after the heat treatment and removal of a surface  
oxide film.
2. (Currently Amended) The method according to claim 1, wherein the forming the  
monocrystalline island region including the  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  and the amorphous ~~or polycrystalline~~  
peripheral region includes forming an oxide film on the monocrystalline Si layer on the  
insulating film excluding a portion corresponding to the element formation region, and then  
forming an  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  monocrystalline layer on the monocrystalline Si layer and  
 $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  polycrystalline layer on the oxide film, respectively.
3. (Original) The method according to claim 1, wherein the heat treatment is carried out  
in an atmosphere containing oxygen.

4. (Original) The method according to claim 1, wherein the heat treatment is carried out in an atmosphere containing oxygen, and thereafter the heat treatment is carried out in an atmosphere without oxygen.

5. (Original) The method according to claim 1, wherein a temperature of the heat treatment is 1000°C or more.

6. (Original) The method according to claim 1, wherein a temperature of the heat treatment is from 1150 to 1250°C.

7. (Original) The method according to claim 1, wherein a size of the island region is smaller than 20  $\mu\text{m}^2$ .

8. (Original) The method according to claim 1, wherein a distance between the island regions is at least 0.1  $\mu\text{m}$ .

9. (Previously Presented) The method according to claim 1, wherein the forming the island region and the peripheral region includes:

forming a monocrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer ( $1 > x > 0$ ,  $1 > y \geq 0$ ) on a monocrystalline Si layer on an insulating film;

forming an island-shaped mask layer on the  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer; and

making a peripheral region amorphous by ion implantation excluding an island region of the  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer covered with the island-shaped mask layer.

10. (Original) The method according to claim 9, wherein, ion species for the implantation are one of a Si ion, a C ion or a Ge ion or combination thereof.

11. (Original) The method according to claim 9, wherein the heat treatment is carried out in an atmosphere containing oxygen.

12. (Original) The method according to claim 9, wherein the heat treatment is carried out in an atmosphere containing oxygen, and thereafter the heat treatment is carried out in an atmosphere without oxygen.

13. (Original) The method according to claim 9, wherein a temperature of the heat treatment is 1000°C or more.

14. (Original) The method according to claim 9, wherein a temperature of the heat treatment is from 1150 to 1250°C.

15. (Original) The method according to claim 9, wherein a size of the island region is smaller than  $20\text{ }\mu\text{m}^2$ .

16. (Original) The method according to claim 9, wherein a distance between the island regions is at least 0.1  $\mu\text{m}$ .

17. (Currently Amended) The method according to claim 1, wherein the island region includes a first region including a monocrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer ( $1 > x > 0$ ,  $1 > y \geq 0$ ) on a monocrystalline Si layer on an insulating film and a second region including a slit or hole-shaped amorphous or polycrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer in the first region.

18. (Original) The method according to claim 17, wherein a distance between the slits or between the holes is set within 10  $\mu\text{m}$ .

19. (Original) The method according to claim 17, wherein a width of the slit or the hole is at least 0.1  $\mu\text{m}$ .

20. (Original) The method according to claim 17, wherein the hole has a long and narrow shape.

21. (Currently Amended) [[The]] A semiconductor device manufacturing method comprising: according to claim 1, wherein the forming [[the]] an island region including a monocrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer ( $1 > x > 0$ ,  $1 > y \geq 0$ ) and [[the]] a peripheral region includes including forming the peripheral region of a polycrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer, which surrounds the island region;

subjecting the  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layers to heat treatment; and  
forming a monocrystalline  $\text{Si}_{1-z-w}\text{Ge}_z\text{C}_w$  layer ( $1 > z \geq 0, 1 > w \geq 0$ ), which becomes a  
device formation region, on the island region after the heat treatment and removal of a surface  
oxide film, in place of the amorphous layer.

22. (Previously Presented) The method according to claim 1, wherein  
the forming the island region and the peripheral region includes forming a plurality of  
island regions; and  
each of plurality of island regions has only one active region.

23. (New) The method according to claim 21, wherein the forming the monocrystalline  
island region and the polycrystalline peripheral region includes forming an oxide film on the  
monocrystalline Si layer on the insulating film excluding a portion corresponding to the element  
formation region, and then forming an  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  monocrystalline layer on the  
monocrystalline Si layer and an  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  polycrystalline layer on the oxide film,  
respectively.

24. (New) The method according to claim 21, wherein the island region includes a first  
region including a monocrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer ( $1 > x > 0, 1 > y \geq 0$ ) on a  
monocrystalline Si layer on an insulating film and a second region including a slit or hole-shaped  
polycrystalline  $\text{Si}_{1-x-y}\text{Ge}_x\text{C}_y$  layer in the first region.